



ANNUAL REPORT

ON THE

HEALTH

OF THE

BOROUGH OF GRANTHAM,

For 1914, by

KENNETH PRETTY, M.B.,

ACTING MEDICAL OFFICER OF HEALTH.

TO WHICH IS APPENDED THE

Report of the Sanitary Inspector.



GRANTHAM
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BOROUGH OF GRANTHAM.

SANITARY COMMITTEE.

COUNCILLOR ROWLE (*Chairman*).

THE MAYOR.

COUNCILLOR BOLTON.

„ COLEMAN.

„ KING.

„ PRIEST.

„ REAR.

„ ROBINSON.

„ SHAW.

Medical Officer of Health :

H. POOLE BERRY, M.B.

Acting Medical Officer of Health :

KENNETH PRETTY, M.B.

Sanitary Inspector :

S. FRANCIS NOTT, M.S.I.A., Assoc. R.S.I.

SUMMARY

— OF —

ANNUAL HEALTH REPORT

1914.

BOROUGH OF GRANTHAM.

Area—1725 Acres.

Altitude—186.

Population (Census 1911)—20,074.

Estimated Population (1914)—20,858.

Inhabited Houses (Census 1911)—4,555.

Rateable Value—£88,689.

Assessable Value—£76,588.

General District Rate—2/8 in £; Poor Rate—2/7 in £

VITAL STATISTICS, 1914.

Birth Rate, per 1000 living—20·13.

Gross Death Rate, per 1000 living—14·61.

Corrected Death Rate, per 1000 living—13·23.

Infantile Mortality—73·8.

Isolation Hospital—A Corrugated Iron Building.

Water Supply—Grantham Waterworks Company.

Scavenging and Refuse Disposal—By Contractor and Refuse
Destructeur.

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
OF THE
GRANTHAM URBAN SANITARY AUTHORITY
For the Year 1914.

GRANTHAM,

August, 1915.

*To the Chairman and Members of the Grantham Urban
Sanitary Authority.*

GENTLEMEN,

I beg to lay before you the Annual Report of your Medical Officer of Health for the year 1914.

You will recall that since August, 1914, your Medical Officer of Health has been absent from Grantham on military duties. In September, 1914, you did me the honour of appointing me as his deputy. The absence of my partner, will, I hope, prove sufficient excuse both for the late appearance of this report and for its shortcomings. These shortcomings are likely to be particularly noticeable when this report deals with events of the early part of the year.

The population of your district as estimated for the middle of the year 1914 is 20,858.

During the year, 420 births were recorded in the district, and an additional 10 births were recorded outside the district to Grantham parents. This gives a birth rate of 20·13 per 1000; of these births 17 were illegitimate—a rate of 3·95 of all births. The birth rate—20·13 shows a further considerable fall on that of preceding years,

The total deaths registered in the district was 305 ; of these 32 were of persons not ordinarily resident within the district. The deaths of three Grantham residents were registered outside the district. This gives a corrected figure of deaths as 276, and a corrected death rate of 13·23 per 1000. This rate is slightly below that for 1913 and below the average for the whole country. But the figure is not so good as in 1912 and 1911.

A more detailed comparison of the causes of death in 1913 and 1914 shows that in the latter year serious epidemic disease was not prevalent ; there was but one death from measles as opposed to 12 ; 7 deaths from whooping cough against 17 ; 4 deaths from diphtheria against 7 ; deaths from influenza and epidemic diarrhœa were about the same. Deaths from cancer and malignant disease increased markedly from 10 to 32, and from bronchitis from 11 to 24. Deaths from congenital debility and malformation including premature birth show a gratifying drop from 28 in 1913 to 14 in 1914. Deaths from pulmonary tuberculous are the same—19 in both years.

As is to be expected from a consideration of the above figures the infantile mortality is low. The epidemic diseases are, of course, principally diseases of infancy and childhood, and in the absence of serious epidemic disease and a low figure for congenital debility, infants are likely to do well. Thirty-one children died below the age of one year as against 57 in 1913, the rate per 1000 being 73·8 and 120·76 respectively. The figure for 1913 was unsatisfactory ; that for 1914 is good and the best for six years with the exception of the year 1912. The diminished number of deaths from whooping cough and congenital debility is the most noticeable detail of this year.

NOTIFIABLE DISEASES.—122 Cases of notifiable disease were reported during the year.

There were 55 cases of diphtheria.

5	„	erysipelas.
14	„	scarlet fever.
2	„	enteric fever.
5	„	ophthalmia neonatorum.
26	„	pulmonary tuberculosis.
15	„	other forms of tuberculosis.

Puerperal fever, cerebro spinal meningitis and poliomyelitis did not occur in the district. In 1913 ophthalmia neonatorum was not notifiable in your district, but in that year 164 notifications of the other infectious diseases were made.

DIPHTHERIA.—55 Cases of diphtheria with four deaths were recorded as against 83 cases and 7 deaths in 1913.

The age incidence of these and other notifiable diseases is shown in Table II.

8 Cases occurred in			January.
9	„	„	February.
7	„	„	March.
2	„	„	April.
3	„	„	May.
2	„	„	June.
1	„	„	July.
4	„	„	August.
3	„	„	September.
9	„	„	October.
1	„	„	November.
6	„	„	December.

From this it will be seen that diphtheria was never present in a severely epidemic form, but on the other hand the town was never free from the disease.

The majority of the cases were of a mild type. One death occurred in February, one in March and two in June. The two deaths in June were in young children (sisters); the disease in their cases appears to have been of a very virulent form, very different from most of the other cases notified.

18 Cases were notified in			Grantham.
17	„	„	Little Gonerby.
18	„	„	Spitalgate.
2	„	„	New Somerby.

The disease was chiefly prevalent in Little Gonerby at the beginning of the year, in Grantham in the Summer, and in Spitalgate in the later months.

The freedom of New Somerby from diphtheria as well as other infectious diseases is noticeable. New Somerby is a district which has no slum property. It is extremely probable that the presence of unsatisfactory housing and conditions has a deleterious effect on the surrounding neighbourhood and proves prejudicial to the health of the inhabitants of houses which are well built, well drained and well kept.

As in the past the medical practitioners have fully availed themselves of the facilities afforded by the Sanitary Committee for the free examination of "swabs" from suspicious throats by the Clinical Research Association.

ERYSIPELAS.—The five cases of erysipelas were of a sporadic nature; all made a good recovery. They do not call for further comment.

SCARLET FEVER.—14 Cases of Scarlet Fever were notified and there were no deaths. The town was free from this disease during June, July, August and September. The cases occurred for the most part in Spittlegate, but never threatened to assume epidemic proportions.

It was not considered necessary to open the Isolation Hospital for any of the cases which occurred within the Borough. Cases of scarlet fever and diphtheria were in all cases isolated and nursed in their own homes. This course has generally proved satisfactory in the past and has, I think, been justified in the year under review. The number of occasions in which a second case of scarlet fever, or of diphtheria, has been notified from the same house has been remarkably small except in cases when the second notification has come so soon after the first as to make it certain that infection had been spread before isolation was attempted.

ENTERIC FEVER.—Two cases of enteric fever were notified. Both occurred in the same district—Little Gonerby—but there appeared to be no association between the two cases. Both were nursed in their own homes, the excreta being specially collected and destroyed; both made good recoveries.

The first case occurred in March; the source of infection was not ascertained.

The second case occurred in November. This man, an engineer's labourer, working short time, employed his spare moments working for the contractor who had undertaken to dispose of excreta from Belton Park Camp. Almost without doubt he became infected while so employed.

OPHTHALMIA NEONATORUM.—This disease only became compulsorily notifiable during the early part of 1914. The disease is almost entirely confined to new-born infants, and is, I believe, far the commonest cause of complete blindness, or loss of useful vision in young people in this country. Proper precautions at birth ordinarily prevent this disease; early and appropriate treatment generally prevents damage to the sight. The important point is that treatment should be early and persevered with most conscientiously.

Five cases of this disease were notified to me. Four which had previously been under the care of midwives came under my own care for treatment. It appears to be a natural consequence of the notification of these cases by midwives that the sufferers come under treatment by the Medical Officer of Health. I am a little in doubt whether such was intended. I am glad to say that all these cases made good recoveries without permanent damage to

the eye; the result was in some cases chiefly due to unremitting attention on the part of the Nurses of the Queen Victoria Nursing Association.

TUBERCULOSIS.—26 Cases of pulmonary tuberculosis were notified in 1914, and 15 cases of tuberculosis in other parts of the body. There were nineteen deaths from tuberculosis of the lungs and five from tuberculosis of other parts. The figures for tuberculosis of the lungs are almost identical with those of 1913, and are higher than one could wish; the incidence of other tuberculous disease shows some improvement.

I do not believe that the figures for tuberculosis of the lungs for Grantham during the last few years properly reflect the nature of this disease. About 26 notifications are received annually and there are 19 deaths. Phthisis is not such a fatal disease as these figures would suggest. I think it must be that some of the less severe cases are not notified. This view is strengthened by the little use which I find that practitioners make of the arrangements which the Sanitary Committee have made for sputum examination by the Clinical Research Association. A freer use of these facilities might lead to recognition of a few earlier cases and their permanent cure or arrest. It is regrettable that the Kesteven County Council had not yet been able to build their own Sanatorium. Insured phthisical patients are in some cases sent away to an out-lying Sanatorium, but it is the hardest matter in the world to get satisfactory open-air treatment for poor uninsured tuberculous subjects.

OTHER INFECTIOUS DISEASES.—Information on the subject of infectious diseases, other than those which are compulsorily notifiable, is less exact, and depends on the death returns and personal impressions. Several such infectious diseases occurred, but none were very serious.

MEASLES was very prevalent in the latter part of the year and was peculiar in the number of young adults who were attacked. Those of more mature years were by no means immune, and previous attacks of measles appeared to afford very little protection. Children suffered less severely. Only one School was closed for this or any other infectious disease—Welby Street Infants School in December.

GERMAN MEASLES (Rubella) was also very active in the last four or five months of the year and this disease also attacked many young adults. At one time, this disease was, I understand, so rife as to be a distinct inconvenience in the workshops in the town. I believe the disease was at this time epidemic over the whole country. The cases were all mild, with no deaths recorded.

WHOOPING COUGH.—One death only occurred from Whooping Cough. There were certainly cases in the town through the whole year, but they remained localized to a small area in Welby Street and immediate neighbourhood.

INFLUENZA caused six deaths. There were many cases of this disease, but the type of illness was generally mild.

GASTRIC-ENTERITIS, or summer diarrhœa, caused six deaths. This number is surprisingly low in view of the long spell of hot dry weather through August, September and October. Summer diarrhœa is always more liable to cause trouble in such hot dry weather when milk readily becomes contaminated by air-carried dust and organisms, and acts as a suitable breeding ground for the germs of this disease. The conditions for epidemic summer diarrhœa appeared eminently suitable in 1914, but the figures belied expectations. Summer diarrhœa is an eminently preventable disease; the necessary conditions for its prevention are—that all milk should be fresh; that the vessels in which it is kept, or used, should be scalded before they are used again; that the milk should be kept covered and in a cool place. It may be that the crusade which Dr. Poole Berry has waged against this disease by many notices and pamphlets, and the practice which the Sanitary Committee has followed of enforcing satisfactory accommodation for the storage of food are now leading to good results.

TETANUS or LOCK-JAW caused one death. The child in question was knocked down by a motor car in London Road and sustained a severe compound fracture of the leg. Infection, no doubt, occurred at the time of the injury. The case terminated fatally.

Grantham has been very largely affected by the war and the proximity of the large camp in Belton Park. However, before the camp was started, Grantham was billeted by the North Midland Mounted Brigade (T.F.) which congregated here before proceeding to their training quarters. The North Midland Mounted Brigade of 2000-3000 men with many horses and wagons were largely billeted in public houses and large unoccupied buildings such as schools, maltings, etc. The unoccupied maltings did not prove satisfactory quarters as they were infested with rats. As the weather was fine at the beginning of August many of the soldiers slept in the open without harm. One case of diphtheria occurred in a domestic in a public house in which soldiers were billeted. She was removed speedily to her own home and no cases occurred amongst the military.

At the beginning of September, the 11th Division of the New Armies proceeded to form a camp in and in the neighbourhood of Belton Park. The whole area of the camp was outside the

Borough boundary, but its presence could not fail to have a very marked influence on the social and economic condition of the town.

In anticipation of suggestions from the Local Government Board, I put myself in communication with the Senior Medical Officer at the camp at an early date with a view to giving him such information as might be useful. At a later date certain arrangements were made between the Borough Sanitary Committee and the Military Authorities.

These arrangements concerned chiefly the Isolation Hospital, the Destructor, the Disinfector and the Main Sewer.

The Military Authorities were desirous of having an Isolation Hospital ready at disposal for cases of scarlet fever, or diphtheria, if such should arise in the camp. Accordingly, the Isolation Hospital on Gorse Lane was prepared and a Nurse installed in October. At the end of October one patient was admitted with scarlet fever; he remained in Hospital six weeks and was then discharged. He was treated in Hospital by your Medical Officer of Health. No other cases of scarlet fever or diphtheria occurred at the camp about this time and apparently the Military Authorities decided that the expense of keeping the Hospital open was unwarranted. Cases of infectious disease which have since occurred have been removed by ambulance to Lincoln Fever Hospital. Though I have received no intimation to that effect, I deduce that your Isolation Hospital is not likely to be further requisitioned.

The Isolation Hospital of Grantham Rural District Council is liable to be called upon if a case of small pox arises in the camp.

The use of the Destructor was placed at the disposal of the Military. This measure was temporary; camp refuse is now destroyed in the camp itself.

The Disinfector was also offered and accepted. The earlier arrivals in camp arrived without sufficient change of underclothing and without arrangements having been made for the washing of their kit. As a natural consequence very many men became verminous and the Disinfector was kept busy. Recently field disinfectors have been installed in the camp so that the Borough Disinfector is not required by the soldiers. They have proper change of clothing and a scheme for washing their clothing has been devised.

It was proposed that fluid excreta should be carted in tubs from the camp to the manhole of the main sewer by the Destructor and this was sanctioned by the Sanitary Committee, but I cannot find that this sewer was ever utilized.

Soldiers' Washing.—As pointed out previously, washing the underclothing of 12000-15000 soldiers was no light task and the organization of this work redounds very much to the credit of those clever and energetic people who took the matter in hand. The whole business was rendered particularly difficult from the fact that spare kit was lacking for the soldiers, and their clothing innocent of any distinguishing mark; all clothing had to be marked at the depôts before being sent on to the washerwomen. For the first few weeks the work was rendered particularly unsavoury by reason of vermin and by the fact that garments only got washed about once in three weeks; but eventually a very satisfactory system was developed. The Army allowance of $3\frac{1}{2}$ d. a head per man proved sufficient pay for the women who actually did the washing, but a large voluntary staff of helpers has done invaluable work at the three depôts—in Middlemore Yard, Oxford Street and Springfield—in sorting, marking, mending and checking.

Your Medical Officer of Health and Sanitary Officer advised in the selection of houses in which there was suitable accommodation for home laundry work. In case of infectious disease occurring in a house where washing is done, the washerwoman is temporarily suspended.

Special attention has been paid to the bakehouses in Grantham where the greater part of the Army bread is made. These have been found in a satisfactory condition. A bakehouse at Great Gonerby is also utilized.

The camp is supplied with drinking water by the Grantham Waterworks Company.

I have not been able to satisfy myself that the health of the town has been in any way adversely affected by the presence of the camp. As pointed out previously, serious infectious disease has not prevailed in Grantham; neither has there been much at the camp. The absence of enteric fever at the camp is remarkable and can only be attributed, I imagine, to the wonderful effectiveness of anti-typhoid inoculation, to which almost all the men submitted. German measles was at one time very frequent at the camp as also over the whole country. Other infectious complaints have occurred as isolated cases only.

Social and economic conditions of the town.—As was the case in many parts of the country, the outbreak of war led to a sudden disturbance of trade. Many young men enlisted; many others migrated to the large armament works at Coventry, Newcastle, Barrow, etc. The presence of the camp found work for many others who might otherwise have been unemployed. The erection of huts for 15000 men, and the other work of camp building meant

much work in the town for joiners and labourers at a good wage. I am quite certain that the health of many men who ordinarily work indoors was much improved by three or four months outside work which they did last Autumn. There was an influx of joiners, particularly from Nottingham and Boston, and a large demand for lodging accommodation.

Employment on soldiers' washing found work for plenty of women and enabled them to augment the family income without neglecting their homes. Before the winter the staple engineering industry of Grantham was able to provide plenty of employment for all who wanted it. The absence of empty houses is an indication of satisfactory trade; it is quite certain that there has been no want in the town.

I append the usual tables of statistics and the report of your Sanitary Inspector (Mr. S. Francis Nott), the quality of whose work I fully appreciate. I have found his assistance invaluable on all occasions, and take this opportunity of acknowledging it.

I am highly indebted to the Town Clerk (A. H. Malim, Esq.) for much valuable and ready advice; and to you, Gentlemen, for the honour you have done me and for your kindness on all occasions.

I am, Gentlemen,

Yours obediently,

KENNETH PRETTY.



Table I.—Vital Statistics of Whole District during 1914 and previous Years.

NAME OF DISTRICT.—BOROUGH OF GRANTHAM.

Year.	Population estimated to Middle of each Year.	Births.			Total Deaths registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.		Number.	Rate.	Of Non- residents registered in the District.	Of Resi- dents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1000 Nett Births.	Number.	Rate.
1909	18,265	507	507	27.75	302	16.55	18		73	143.98	283	15.49
1910	18,349	475	475	25.88	270	14.72	28		46	96.98	241	13.13
1911	20,074	460	460	22.91	268	13.35	27	2	45	96.08	243	12.1
1912	20,322	457	455	22.37	238	11.21	27	5	23	50.54	216	10.63
1913	20,684	472	472	22.81	297	14.34	24	9	57	120.76	283	13.63
1914	20,858	420	430	20.13	305	14.61	32	3	31	73.8	276	13.23

Total population at all ages ... 20,074 at Census, 1911.
Area of District in Acres (Land and Inland Water) ... 1726 Acres.

Table III.—Causes of, and Ages at Death during the Year 1914.

NAME OF DISTRICT.—BOROUGH OF GRANTHAM.

Causes of Death.	Nett Deaths at the subjoined ages of "Residents " whether occurring within or without the District.									Total Deaths, whether of Residents or Non- residents in Institu- tions in the District.
	All Ages	Under 1 year	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	
All causes { Certified ... { Uncertified.										
Enteric Fever										
Small-pox										
Measles	1	1								
Scarlet Fever										
Whooping Cough	7	2	2	1	2					
Diphtheria and Croup	4			2	2					
Influenza	6									
Erysipelas							2	2	2	
Phthisis (Pulmonary Tuberculosis)	19				1	5	9	4		1
Tuberculous Meningitis... ..	2	1	1							
Other Tuberculous Diseases	3				1		1	1		1
Cancer (Malignant Disease)	32						4	12	16	2
Rheumatic Fever										
Meningitis	1			1						
Organic Heart Disease	21					3	1	7	10	2
Bronchitis	24	2	3					6	13	1
Pneumonia (all forms)	14	2	2	2		1	1	2	4	2
Other Diseases of Respiratory Organs	5									
Diarrhœa and Enteritis... ..	6	5	1					3	2	1
Appendicitis & Typhlitis... ..										
Cirrhosis of Liver	2							2		1
Alcoholism										
Nephritis and Bright's Disease	8				1			5	2	
Puerperal Fever										
Other Accidents and Diseases of Pregnancy and Parturition	2						2			
Congenital Debility and Malformation, includ- ing Premature Birth... ..	14	13		1						
Violent Deaths excluding Suicide	5			2		2	1			9
Suicide	4						1			
Other defined Diseases	55	2	1		3	1	6	18	3	14
Diseases ill-defined or unknown	41	3	2				1	4	31	14
Totals	276	31	12	9	10	13	28	66	107	48

Table IV.—Infant Mortality, 1914. Nett Deaths from stated causes at various Ages under 1 Year of Age.

GRANTHAM BOROUGH.

Cause of Death.				Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under 1 year
All causes	{	Certified ...	...	...							
		Uncertified	...	...							
Small-pox		...	...	...						
Chicken-pox		...	...	...						
Measles		...	...	...						
Scarlet Fever		...	...	...							1		1
Whooping Cough		...	...	...						
Diphtheria and Croup		...	...	...							2		2
Erysipelas		...	...	...						
Tuberculous Meningitis		...	...	...						1			1
Abdominal Tuberculosis		...	...	...						
Other Tuberculous Diseases		...	...	...						
Meningitis (<i>not Tuberculous</i>)		...	...	...						
Convulsions		...	...	...					2				2
Laryngitis		...	...	...						
Bronchitis		...	...	...					1			1	2
Pneumonia (all forms)		...	...	...					1		1		2
Diarrhoea		...	...	...					1		2	1	5
Enteritis		...	...	...						1			
Gastritis		...	...	...						
Syphilis		...	...	...						
Rickets		...	...	...						
Suffocation, overlying		...	...	...						
Injury at Birth		...	...	...						
Atelectasis		...	...	...	2			2					2
Conjenital Malformations		...	...	...	1			1					1
Premature Birth		...	...	...	3	1	1	5					5
Atrophy Debility and Marasmus		...	...	...	3	1	1	5		1		1	7
Other causes		...	...	...							1		1
Totals		...	...	...	9	2	1	13	5	3	7	3	31

<p>Nett Births in the Year</p> <p>Nett Deaths in the Year of</p>	{	<p>Legitimate</p> <p>Illegitimate</p> <p>Legitimate Infants</p> <p>Illegitimate Infants</p>	<p>420</p> <p>17</p> <p>31</p> <p>1</p>
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FACTORY AND WORKSHOPS ACT, 1901.

Factories, Workshops, Workplaces and Homework.

INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including inspections made by Sanitary Inspectors or Inspectors of Nuisances.

PREMISES.	NUMBER OF		
	Inspection.	Written Notices.	Prosecution.
Factories (including Factory Laundries)	83	6	Nil.
Workshops (including Workshop Laundries)			
Workplaces (other than Outworkers' premises included in Part 3 of this Report)			
Total	83	6	Nil.

DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

PARTICULARS.	No. of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
NUISANCES UNDER THE PUBLIC HEALTH ACTS;—				
Want of cleanliness	3	3		
Want of ventilation				
Overcrowding				
Want of drainage of floors				
Other nuisances				
Sanitary accommodation {	insufficient	2	2	
	unsuitable or defective	3	2	
	not separate for sexes	2	2	
		2	2	
OFFENCES UNDER THE FACTORY AND WORKSHOP ACTS;—				
Illegal occupation of underground bakehouse (s. 101)				
Breach of special sanitary requirements for bakeries (ss. 97 to 100)				
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)				
Total	12	11	Nil.	Nil.

REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.								Number.
Important classes of work- shops, such as workshop bakehouses may be enu- merated here	Bakehouses	...	...	...	...	...	31
	Other Workshops	...	...	...	...	...	185
Total number of Workshops on Register							216	

OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901) ...	
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (s. 5, 1901) ...	4
Notified by H.M. Inspector ...	
Reports (of action taken) sent to H.M. Inspector ...	
Other ...	
Underground Bakehouses (s. 101) in use at the end of the year ...	

ANNUAL REPORT

—OF THE—

SANITARY INSPECTOR,

For the Year 1914.

GUILDHALL,

GRANTHAM,

August, 1915

*To the Mayor, Aldermen and Councillors of the
Borough of Grantham.*

GENTLEMEN,

In presenting my Report for the year 1914, I am pleased to be able to report continued steady progress in many matters concerning the sanitation of the Borough. A temporary check has been given to the house to house inspection, however, since the outbreak of war, owing to extra vigilance being required in other directions incident to the influx of large numbers of soldiers in the Borough and immediate neighbourhood.

The establishment of a large military camp on the outskirts of the Borough, in addition to large number of soldiers billeted in various parts of the town, necessarily entailed an immense amount of extra work in my department. The supervision of food, scavenging, disinfection &c. called for increased energies and it is pleasing to note that the health and the sanitary condition of the town has been satisfactorily maintained.

Something of a problem which confronted the new camp military authorities, at the outset, was the washing of garments of thousands of soldiers. The co-operation of the military, labour exchange and sanitary authorities, however, solved the difficulty of ensuring that the washing would be carried out under suitable conditions.

All persons desirous of receiving washing were required to register themselves at the local labour exchange. The names and

addresses were then submitted to the M.O.H. and myself for investigation as to the accommodation available for washing and drying, and the sanitary condition of the houses. In this manner some hundreds of homes were dealt with and many names of undesirable persons and premises eliminated.

A voluntary scheme was inaugurated to deal with the matter, and several depôts were established for the reception and distribution of the garments.

COMPLAINTS.—There was a diminution in the number of complaints of nuisances received as compared with the previous year. Personal investigation followed the receipt of all complaints and the necessary steps taken to secure the abatement of any nuisance found to exist.

LEGAL PROCEEDINGS.—In one instance it was necessary to make application to the magistrates, under Sec. 70 of the Public Health Act, to close a polluted well. The owner disputed the analysis of the water, and the magistrates ordered a further sample to be taken and analysed. The first analysis was substantiated and an order was made for the well to be closed for drinking purposes.

Six ejectment orders were granted under the Housing and Town Planning Act, 1909, in respect of occupiers of houses where closing orders had become operative.

HOUSE TO HOUSE INSPECTION.—The number of houses inspected under the Housing and Town Planning Act, 1909, was 106, as compared with 170, in 1913.

For several reasons, such as scarcity of labour, increased cost of building materials, &c., your Sanitary Committee deemed it advisable, after the outbreak of war, to suspend the survey for a time.

The houses inspected were in Malt Hill, Charles Street, Manners Street, Sexton's Row, Wharf Road, Hand's Yard and Inner Street. In the latter street, one house was represented as being unfit for habitation and closed

Ten houses in Rugby and Harrow Cottages, Eton Street, were also closed and the orders afterwards determined upon the houses being put into a sanitary condition.

The following houses, previously closed as being unfit for habitation, were re-opened after considerable alterations and repairs had been executed, viz. :—No. 3 Vere Street, No. 33 South Parade, and Nos. 1 and 2 Wand's Place, New Street.

The provision of means of through ventilation to houses, new pantries and ventilation of old ones, are items in the list of sanitary improvements effected which should contribute in no small measure to the increased comfort and health of those concerned.

HOUSE DRAINAGE.—The number of drains tested during the year was 143 and of these 22 were on premises where cases of Diphtheria occurred.

Owing to the inaccessibility of a large number of old drains on account of the absence of intercepting traps and inspection chambers, it is impossible to apply smoke under pressure as a test in such cases.

The omission of the intercepting trap and means of ventilation in old drains is fairly general, thus giving free access for foul sewer air to the drains and sanitary fittings on the premises concerned. Where these are defective foul emanations not infrequently give rise to serious illnesses.

New glazed stoneware sinks have been provided in 45 houses and 15 waste pipes renewed or trapped.

The number of downspouts acting as ventilating pipes to drains and sewers is still very large. Steps are being taken under the Public Health (Amendment) Act, 1907, to have these disconnected. In cases where the downspouts abut on the public footpath the water is conducted into the street channel and thence to surface water sewers where these exist. In this manner a double purpose is served, viz.: that of relieving the foul sewer of large volumes of surface water and also of preventing danger to health by rain water pipes, often with defective joints, acting as ventilating pipes to drains and sewers.

WATER SUPPLY.—Two samples of well water were examined by your Medical Officer of Health, one of which was found to be polluted and unfit for drinking purposes. This well supplied water to a steeping cistern in a malting and also an adjoining house. The well was subsequently closed for drinking purposes by the magistrates, and the Grantham W.W. water laid on to the house, but the polluted well still continues to supply the malting.

SLAUGHTER HOUSES.—There are 29 slaughter houses on the register, 8 of these being licensed annually. They are inspected frequently and at irregular intervals and times. It is a physical impossibility to “keep an eye” on meat and carcasses from such a large number of slaughter houses, but attempts are made to visit as many slaughter houses as possible during times of slaughtering.

The lime washing and cleansing of slaughter houses has been

carried out as required, but the structure of most of them renders it very difficult to keep them in anything like an ideal sanitary condition.

MEAT AND FOOD INSPECTION—During the year frequent inspections have been made of the fish, meat, fruit and vegetable markets. Also of shops and premises where articles of food are sold or prepared for sale.

It was not found necessary to seize any article as being unfit for consumption.

Only 26 stones of tubercular beef were surrendered and destroyed during the year, as against 274 stones in the previous year.

One carcase of pork, weighing 16 stones, affected with tuberculosis was also surrendered and destroyed.

The following were similarly dealt with, viz.: Carcase of lamb 4 ox livers and 6 pairs of ox lungs. No legal proceedings were necessary in any instance.

DAIRIES, COWSHEDS AND MILKSHOPS.—The number of persons registered as cowkeepers and purveyors of milk, under the Dairies, Cowsheds and Milkshops Order, remains the same as last year, viz.: 7 cowkeepers and 41 purveyors.

During the year a cowshed situate in Harrowby Fields was condemned as being unsuitable. The owner, P. C. de Paravicini, Esq., caused a new model cowshed for 12 cows to be erected a short distance from the old building. It is well lighted and ventilated, and contains a feeding passage, concrete channel and floor. A provender room and milk store are also provided. Water is obtained from the river which runs close by, and the drainage is conveyed from gullies outside the building to a properly constructed cesspool some distance away.

Manure is not allowed to accumulate near the cowshed, as is often the case, but is removed some 40 feet from same.

If more buildings of this description were erected in lieu of the more obsolete and unsatisfactory structures for housing cows found in all parts of the country, a great deal would have been done towards procuring a cleaner milk supply.

All the cowsheds and milkshops were visited periodically, and whilst the latter were generally found to be in a satisfactory state it was necessary on several occasions to notify cowkeepers of breaches of the regulations and insist on their being remedied.

Complaints are sometimes received from consumers, of milk turning sour in a short time after delivery. In the majority of cases it is found to be due to the milk not being cooled before transit. In some cases milking takes place at 6 a.m. or even earlier, and without being cooled is conveyed several miles to town where it is retailed to customers, the last customer receiving milk some six hours after milking.

The lactic acid bacilli, which are the cause of milk souring, thrive in warm milk, but if it were cooled to say 10° C. at the farm, there would be fewer complaints of milk turning sour soon after delivery.

THE SALE OF FOOD AND DRUGS ACTS.—Of 51 samples of food and drugs procured for analysis by the Public Analyst, eleven were informal samples.

Only two samples were certified by the Public Analyst as being adulterated, viz.: one milk and one informal sample of rum.

In the latter case a further sample of rum was obtained in a formal manner, but was found to be genuine.

The sample of milk was deficient in non-fatty solids to the extent of $13\frac{1}{2}\%$. Legal proceedings were taken, and the case was dismissed on the payment of costs by the defendant.

The samples analysed during the year consisted of milk, butter, cream, lard, coffee, whiskey, rum, sweet spirit of nitre, tincture of rhubarb and camphorated oil.

No action was taken under the Public Health (Milk and Cream) Regulations during the year.

HOUSE REFUSE REMOVAL.—The collection of house refuse from a health point of view is one of supreme importance. During the first month of the year, many complaints were received of the Contractor's neglect in removing house refuse, the cause arising chiefly from very bad weather and short working days. Towards the end of the year difficulties again arose, several of the workmen having rejoined the Army. Labourers preferred employment at the new Military Camp at a much higher rate of wages and less laborious work than that of removing house refuse.

The number of galvanised iron dustbins supplied after notices to owners was 296.

Twenty ashbins were provided by your Council under Sec. 36, Public Health Act, 1875, and the Amendment Act of 1890, where the owner failed to comply with the statutory notice. The cost was recovered from the owner upon demand for payment being made.

INFECTIOUS DISEASE AND DISINFECTION.—During the year all cases of infectious disease notified necessitated visits and re-visits to the houses where they occurred.

Some 145 visits were made to infected houses for the purpose of investigation, inspection of sanitary arrangements, disinfection, &c.

In 22 instances the drains were tested where cases of diphtheria had been notified.

The number of rooms disinfected was 97, as compared with 135 in the previous year.

In nearly every case the bedding &c., was removed to the Steam Disinfector and the rooms sprayed or fumigated with Formalin.

The Steam Disinfector was put to a severe test during the last 4 months of the year, owing to the demand made upon it by the military authorities.

Considerable numbers of soldiers, who, through no fault of their own in most cases, had become verminous, were sent to the Steam Disinfector for the purpose of having their clothing, &c., disinfected.

The men divested themselves of all their clothing, and this was put through the disinfecting machine, while hot water, soap, &c., was supplied to the men for washing themselves.

In this manner nearly 5000 soldiers were dealt with, all of whom expressed their appreciation of the facilities afforded them.

In conclusion, I have again to express my sincere thanks for the earnest manner in which the Sanitary Committee have supported me in carrying out my duties. Also to Dr. Poole Berry and Dr. Pretty for their kind and invaluable help in many difficulties.

I am, Mr. Mayor and Gentlemen,

Your obedient Servant,

S. FRANCIS NOTT,

M.S.I.A., Assoc. R.S.I.

TABLE I.

Visits to slaughter houses ...	825	Number of samples of water	
„ workshops	43	obtained for analysis	2
„ cowsheds	31	„ rooms disinfected ...	97
„ dairies and milkshops...	107	„ drains tested (after	
„ cattle market	38	infectious disease) ...	22
„ meat, fish and vegetable		„ drains tested (after	
markets	48	relaying &c.)	121
„ infected houses ...	145	„ statutory notices served	144
„ schools	7	„ informal notices served	200
„ offensive trade premises	26	„ slaughter houses on	
Number of houses inspected		register	29
under Housing, &c.,		„ workshops, &c. on register	216
Act, 1909	106	„ cowkeepers or purveyors	
„ complaints received and		of milk on register ...	48
investigated	43	„ common lodging houses	
„ samples of food and		on register	4
drugs obtained for			
analysis	51		

TABLE II.

Sanitary improvements effected as a result of action taken with regard
to house-to-house inspection, nuisances, &c.

INTERIOR OF HOUSES.		
Damp walls rendered impervious	71	
Defective walls repaired ...	62	
Floors renewed or repaired ...	87	
Ceilings renewed or repaired ...	34	
Stairs renewed or repaired ...	13	
Windows renewed or repaired	23	
Windows made to open ...	10	
Additional windows provided...	16	
Additional means of ventilation provided	17	
Houses provided with means of through ventilation	37	
Doors renewed or repaired ...	4	
Pantries provided	20	
Pantries ventilated	24	
Filthy houses cleansed...	3	
EXTERIOR OF HOUSES.		
Roofs renewed or repaired ...	40	
Spouting renewed or repaired...	24	
External brickwork repaired ...	11	
WATER SUPPLY.		
Water laid on from G.W.W. mains	2	
Wells closed	1	
DRAINAGE.		
Drains cleansed	38	
Drains repaired	61	
Drains relaid, intercepted, &c.	59	
Drains ventilated	14	
Additional drains provided ...	8	
Soil and ventilating pipes renewed or repaired ...	5	
Sinks provided	45	
Sink wastepipes renewed, trapped, &c.	15	
Downspouts disconnected from drains, &c.	62	
WATER CLOSETS.		
Water closets cleansed...	45	
„ repaired and rebuilt ...	79	
provided with flushing cisterns	7	
Water closet cisterns provided with water ...	6	
Additional water closets provided	4	
OUT-BUILDINGS.		
Wash-houses cleansed	6	
„ repaired	8	
„ provided with additional light	2	
PAVING.		
Yards paved or repaved ...	24	
„ repaired	15	
OVERCROWDING.		
Overcrowded houses, nuisance abated	2	
FILTHY PREMISES.		
Yards and other filthy premises cleansed	7	
Animals causing nuisance removed from premises ...	13	
OFFENSIVE ACCUMULATIONS		
Accumulations of manure removed	14	
Other accumulations removed	3	
Manure receptacles repaired, &c.	1	
ASHES RECEPTACLES.		
Galvanised iron dustbins provided	296	
SLAUGHTER HOUSES.		
Slaughter houses cleansed ...	4	
„ repaired ...	4	
Galvanised iron receptacles for refuse provided	8	
COWSHEDS.		
Cowsheds cleansed	4	
FACTORIES & WORKSHOPS.		
Workshop w.c.'s cleansed ...	3	
„ „ repaired or renewed ...	3	
Additional w.c.'s provided ...	2	

Table III.
Sale of Food and Drugs Acts.

Nature of Article Analysed.	No. of Samples taken.	Number genuine.	Number Adulterated.	Number of Convictions.	No. of Cases dismissed or withdrawn.	Result.		Remarks.
						Fines	Costs.	
Milk	37	36	I		I		5/-	Legal proceedings were taken in one instance & resulted in the case being dismissed on payment of costs,
Lard	I	I						
Coffee	I	I						
Rum	I	I						
Total	40	39	I		I		5/-	
Milk	I	I	I	} Informal Samples				
Butter	I	I						
Lard	I	I						
Cream	2	2*						
Rum	I							
Whiskey... ..	2	2						
Sweet S. of Nitre	I	I						
Tincture Rhubarb	I	I						
Camphorated Oil	I	I		} *Analysis of one sample of Cream not completed.				
Total	II	IO	I.					

Table IV.
Sale of Foods and Drugs Acts.
Adulterated Samples.

Nature of Article Analysed.	No. of Sample.	Result of Analysis.	Remarks.
Rum (Informal)	152	Rum was found to be 28·4 degrees under proof—100 per cent. 3·4 degrees below the limit of 25 degrees under proof allowed.	Further formal sample was found to be genuine.
New Milk ...	162	Milk fat 4·23 Milk solids (other than milk fat) ... 7·35 Water 88·42 ————— 100·00 —————	

Table V.
Unsound Food Destroyed.

Beef, 26 stones, all of which was tubercular.
Pork, 16 stones, all of which was tubercular.
Lamb, 1 carcase.
Ox Livers, 4.
Ox Lungs, 6 pairs.

Table VI.—The Housing Town Planning, &c., Act, 1909. Housing Regulations, 1910.
Inspection of District, 1914.

Situation of Premises Inspected.	No. of houses inspected.	No. of houses found to be unfit for human habitation	No. of representations made to Local Authority, Sec. 17.	No. of Closing Orders made, Sec. 17.	No. of Closing Orders determined.	No. of Houses where defects were remedied without Closing Orders.	No. of Houses dealt with under Sec. 15	REMARKS.
Eton Street ... ..	...	...	10*	10	10			
New Street ... ..	...	...			2			
Inner Street	1	1	1	1				Insufficient ventilation and light.
Charles Street	12					5	3	
Manners Street	44					2	13	Defective roofs, damp walls, defective walls, floors, ceilings and stairs.
Malt Hill	8						1	
Sexton's Row (Bridge End Road)	16						9	
Wharf Road	7						5	Absence of suitable places for storing food.
Hand's Yard (Welby Street)	18						7	
Vere Street ... ..	...	...			1			
South Parade ... ..	...	...			1			
Totals	106	1	11	11	14	7	38	

* Represented as unfit, December, 1913.

Table VII.
Result of Legal Proceedings.

Situation of Premises.	Nature of Complaint.	Act under which proceedings were instituted.	Result.
Rugby & Harrow Cottages (four houses)	Application for Ejectment Orders against occupiers of houses after Closing Orders had become operative	Housing, &c., Act, 1909	Ejectment Orders made
1 and 2 Wand's Place, New Street	Ditto	Ditto	Ditto
32 East Street ...	Application to close polluted Well	Public Health Act, 1875 (Sec. 70)	Order made

Table VIII.
Articles disinfected by Steam Disinfector.

Mattresses	...	109	Carpets	...	24
Beds	...	94	Articles of Clothing	...	54
Bolsters or Pillows	...	229	Miscellaneous	...	65
Sheets	...	36			—
Blankets	...	141			807
Counterpanes	...	55			—

Articles disinfected by request of Military Authorities, Hospitals, &c.

Soldiers' Kits	...	4316
Soldiers' Blankets	...	575
Soldiers' Great Coats	...	14
Soldiers' Washing (Bundles)	...	26
Miscellaneous Articles	...	125
		5056

